July 14, 2011
AET 11-0040

ATTN: Document Control Desk
Mr. Brian McDermott, Acting Director
Division of Security Policy
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

American Centrifuge Plant
Docket Number 70-7004; License Number SNM-2011
Submittal of Changed Pages of the Emergency Plan for the American Centrifuge Plant - Export Controlled Information

INFORMATION TRANSMITTED HEREWITH IS PROTECTED FROM DISCLOSURE PURSUANT TO 10 CFR PART 810

Dear Mr. McDermott:

Purpose

In accordance with 10 *Code of Federal Regulations* (CFR) 70.32(i), USEC Inc. (USEC) hereby submits to the U.S. Nuclear Regulatory Commission (NRC) changed pages of the Emergency Plan for the American Centrifuge Plant (ACP) as Enclosures 1 and 2 of this letter.

Background

Currently, the NRC-accepted Emergency Plan in effect at the U.S. Department of Energy reservation in Piketon, Ohio is the United States Enrichment Corporation's Emergency Plan, which USEC credited within Chapter 8.0 of the License Application for the Lead Cascade Facility. Changed pages for this site-wide Emergency Plan are currently submitted to the affected off-site response organizations in accordance with 10 CFR 76.91(o) and will remain effective until implementation of the Emergency Plan for the ACP. Upon full implementation of the new site-wide Emergency Plan and in accordance with 10 CFR 70.32(i), USEC will begin supplying changed pages to the affected off-site response organizations through the controlled distribution process.

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NSIR08

Discussion

The changes noted in Enclosures 1 and 2 have been reviewed in accordance with 10 CFR 70.32 and have been determined not to decrease the effectiveness of the applicable plan. Revision bars in the right hand margin depict changes from the previous revision submitted to the NRC.

Enclosure 2 contains Export Controlled Information and in accordance with the guidance provided by the U.S. Department of Energy, this information must be protected from disclosure per the requirements of 10 CFR Part 810.

Action

No specific action is requested concerning this submittal.

Contact

If you have any questions regarding this matter, please contact me at (301) 564-3470 or Terry Sensue at (740) 897-2412.

Sincerely,

Peter J. Miner
Director, Regulatory and Quality Assurance

Enclosure: As Stated

cc: J. Calle, NRC Region II
J. Downs, NRC HQ
D. Hartland, NRC Region II
O. Siurano, NRC HQ
B. Smith, NRC HQ

Enclosure 1 to AET 11-0040

Changed Pages of the Emergency Plan for the American Centrifuge Plant

Information contained within
does not contain
Export Controlled Information

Reviewer: R.S. Lykowski
Date: 7-13-11

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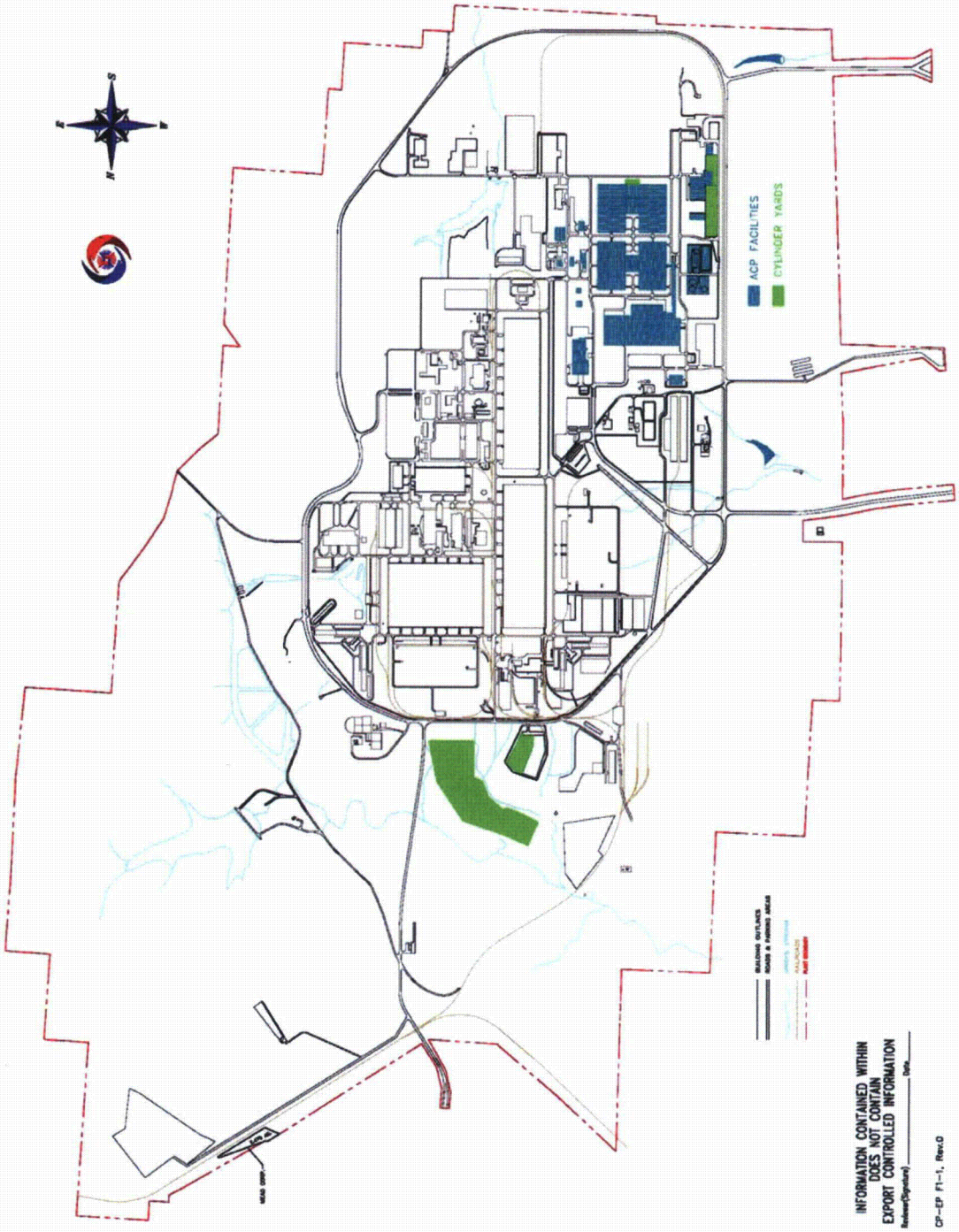
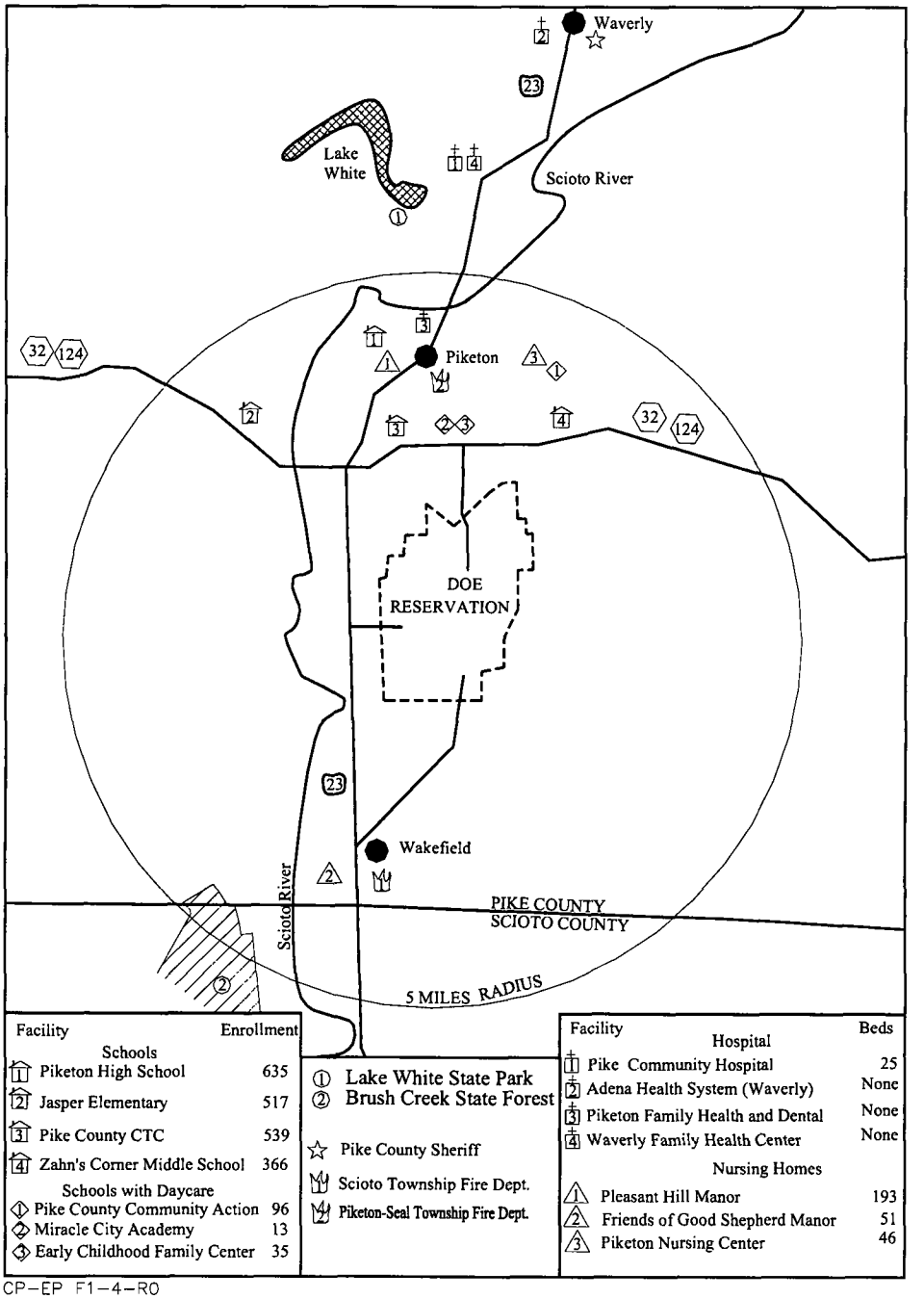


Figure 1-1 U.S. Department of Energy Reservation



CP-EP F1-4-RO

Figure 1-4 Special Population Centers and Off-Site Emergency Response Organizations within Five Miles of the U.S. Department of Energy Reservation

The ACR provides the central operating functions to monitor and control both the X-3001 and X-3002 buildings machines and process. The maintenance area is located in the south section of the building and includes: maintenance shops, storage areas, a battery charging room, offices, men's and women's locker rooms, restrooms, and a mezzanine area with additional office areas, and HVAC rooms.

The X-3346A Feed and Product Shipping and Receiving Building is located south-southwest of X-3001 building. The X-3346A building serves as the focal point for receipt and shipping of natural and enriched uranium.

The X-3346 Feed and Withdrawal Building has two distinct areas of operation. The first area, also referred to as the Feed Area, supports the front end of the overall enrichment process by housing the equipment necessary to provide UF_6 feed to the enrichment process. This area also supports UF_6 cylinder blending/transfer operations. The second area, also referred to as the Withdrawal Area, houses the equipment necessary to withdrawal enriched and depleted UF_6 from the process. The X-3346 building is connected to the X-3001 and X-3002 buildings by the X-2232C Interconnecting Process Piping.

The X-3344 Customer Services Building is located to the north of the X-3346 building and west of the X-3001 building. The X-3344 building houses equipment necessary to sample UF_6 cylinders from the process.

The X-7725 Recycle/Assembly Facility is a very large multiple level building used for the assembly of centrifuge machines. Completely assembled centrifuge machines are tested in the Gas Test stands using UF_6 to verify the correct placement of machine components and the proper operation of the centrifuge machine. The Gas Test is performed in the X-7725 facility prior to moving the centrifuge machines to the process building for installation. This building may also be used for centrifuge manufacturing. Wrecked centrifuge machines are also stored in this building after removal from the process buildings. Areas of the X-7725 will be utilized for shipping, receiving, and storage of materials.

The X-7726 Centrifuge Training and Test Facility is located in the northwest corner of the X-7725 facility. The X-7726 facility is the area where material and components are received; components or subassemblies are inspected and tested; the components are assembled as centrifuge machines; the final assembly is evacuated and leak checked; and repairs are performed to the machine or subassemblies.

The X-7727H Interplant Transfer Corridor provides an enclosed north-south throughway from the X-7725 and X-7726 facilities to the X-3001 and X-3002 buildings. The corridor is wide enough to accommodate bi-directional passage of two fully loaded centrifuge transporters.

The ACP cylinder yards provide storage for natural feed uranium, depleted (tails) uranium, and enriched (product) uranium-awaiting shipment. There are four cylinder storage yards that support the ACP. Two of the yards are located adjacent to the X-3346 building (X-7746S and X-7746W), and the other two are located just north of the reservation Perimeter Road to the north of X-344 facility (X-745G-2 and X-745H).

The X-7725 facility is a very large multiple level building used for the assembly of centrifuge machines. A small portion of the X-7725 facility, shown in Figure C-1 (located in Appendix F of this plan), provides administrative facilities; buffer storage area for storage, handling, and assembly preparation of centrifuge components; and completed machines, as well as training rooms, and the storage and maintenance areas for the transporter. Areas of the X-7725 will be utilized for shipping, receiving, and storage of materials.

The X-7726 facility is located in the northwest corner of the X-7725 facility. The X-7726 facility is the area where material and components are received; components or subassemblies are inspected and tested; the components are assembled as centrifuge machines; the final assembly is evacuated and leak checked; and repairs are performed to the machine or subassemblies.

The X-7727H corridor provides an enclosed north-south throughway from the X-7725 and X-7726 facilities to the X-3001 and X-3002 buildings. A transporter moves centrifuge machines between the X-7726 facility and X-3001 building through the covered X-7727H corridor. The corridor is wide enough to accommodate bi-directional passage of two fully loaded centrifuge transporters.

GDP facilities that provide support to the Lead Cascade include the XT-847 Waste Management Staging Facility and X-710 Technical Services Building (these facilities are discussed in Appendix B).

Lead Cascade operations are monitored continuously from the X-3012 building ACR. In the event of an emergency condition, the Plant Shift Superintendent (PSS) located in the X-300 Process Control Facility is notified. The PSS assumes the Incident Commander duties in the unlikely event of a declared emergency. Communications between the ACP and X-300 facility consists of a radio system, conventional telephone system, public address system, and evacuation alarm system.

A four-inch continuous vent sampling system with a total stack height of 97.5 feet located on the X-3001 building roof, monitors emissions from the Lead Cascade enrichment process vent. The continuous vent sampler draws a flow-proportional sample of the vent stream through two alumina traps in series by way of an isokinetic probe. The process flow rate from this vent is a maximum of 256 cubic feet per minute. This vent meets the U.S. Environmental Protection Agency requirements.

This vent is monitored for radionuclide emissions. Although no atmospheric radionuclide emissions from the Lead Cascade have been identified to have the potential to exceed a 0.1 millirem/year dose to the most exposed member of the public during normal operation, the continuous vent monitor has been installed to quantify plant radiological airborne emissions.

The health protection program provides services for individuals to meet regulatory requirements and to maintain a high level of employee health. The X-1007 Fire Station maintains a first aid room and provides ambulance service for emergency conditions.